Hornchester W.C. 4/9

8-4

HYDROLOGICAL MEMORANDA No.30

Rainfall, 1916-1950, over the areas of Beauly and Ness and of Banff, Moray and Nairn

1. Rainfall Averages for the standard 35 year-period, 1916-1950

The determination of 35-year averages, for the months and for the year, was carried out in three stages.

a. Sound, homogeneous records complete for the 35 years, 1916-50, were selected to provide arithmetical averages of monthly and annual rainfall. The averages for stations in this group are given in Table I together with the percentage ratio of each monthly average to the relevant annual average.

The percentage ratios, plotted on a series of 12 maps - one for each calendar month - enabled isopercental lines to be drawn for the whole of Scotland. Small scale copies of the maps for the areas of this Memorandum are shown in Figure 1.

b. Annual averages for the period 1916-1950 were estimated for short-period stations using the methods described in Hydrological Memorandum No.5. The annual averages so found were then apportioned over the 12 calendar months using the isopercental maps referred to in a. above. Table II contains the resulting averages for those stations whose records were acceptable when subjected to the statistical tests mentioned in Hydrological Memorandum No. 5.

c. All available annual averages were plotted, and isohyets drawn on large scale maps. The isohyets, on a reduced scale, are reproduced as Figure 2.

2. Daily Rainfall, 1916-50

A number of stations with regular daily readings were chosen from Table I to provide, for each date of the year, a mean daily value based on the rainfall over the 35 years, 1916-50. The means are shown as accumulations in Table III, the entry under any particular date being the mean rainfall from January 1st to the date in question.

The mean rainfall for any particular period can be obtained by subtracting the accumulated total at the beginning of the period in question from the corresponding total at the end of the period.

3. Frequencies of Daily Rainfall, 1916-50

Stations selected from Table I were used to provide accumulated frequencies of daily rainfall amounts in intervals of mainly 0.10 inch. These are shown in Table IV. For example, the entry at 0.20 inch is the total number of days in the 35 years, 1916-50, with falls of 0.20 inch or more.

4. Extremes of Rainfall

For selected stations, maximum daily falls are set out in Table V, for periods between 1900 and 1963.

5. Further details about rainfall, for example maximum and minimum monthly and annual totals, can be obtained from the Meteorological Office, 26 Palmerston Place, Edinburgh, 12.

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Table I. Monthly and Annual Averages of Rainfall (inches) 1916-50
Beauly and Ness and Banff, Moray and Nairn Catchment Areas

Station	Ht. (Ft)	N.G.R.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year	
Beauly and Ness																
Glenquoich	700	NH (28) 025032	13.17	8.92	7.07	6.85	5.11	6.53	7.51	8.59	9.46	12.30	11.09	12.18	108.78	Inch
			12.1	8.2	6.5	6.3	4.7	6.0	6.9	7.9	8.7	11.3	10.2	11.2	100.0	%
Aberchalder	640	NH (28) 552201	4.65	3.36	2.39	2.67	2.47	2.35	3.52	3.36	3.52	4.37	3.97	3.84	40.47	Inch
			11.5	8.3	5.9	6.6	6.1	5.8	8.7	8.3	8.7	10.8	9.8	9.5	100.0	%
Garthbeg	630	NH (28) 512182	4.52	3.26	2.40	2.52	2.44	2.28	3.26	3.14	3.42	4.21	3.93	3.93	39.31	Inch
			11.5	8.3	6.1	6.4	6.2	5.8	8.3	8.0	8.7	10.7	10.0	10.0	100.0	%
Foyers	52	NH (28) 497212	4.37	3.05	2.17	2.35	2.17	2.12	3.12	2.90	3.16	3.97	3.67	3.67	36.72	Inch
			11.9	8.3	5.9	6.4	5.9	5.8	8.5	7.9	8.6	10.8	10.0	10.0	100.0	%
Culduthel Res.	242	NH (28) 665412	2.74	1.91	1.51	1.78	2.12	1.97	2.94	3.09	2.64	2.94	2.49	2.31	28.44	Inch
			9.6	6.7	5.3	6.3	7.5	6.9	10.3	10.9	9.3	10.3	8.8	8.1	100.0	%
Achareidh	59	NH (28) 868565	2.10	1.54	1.41	1.69	2.11	2.05	2.96	2.94	2.47	2.84	2.30	1.95	26.36	Inch
			8.0	5.8	5.3	6.4	8.0	7.8	11.2	11.2	9.4	10.8	8.7	7.4	100.0	%
Banff, Moray and Nairn																
Cawdor Castle	225	NH (28) 847498	2.84	2.07	1.74	2.07	2.46	2.34	3.31	3.36	2.91	3.37	2.84	2.41	31.72	Inch
			9.0	6.5	5.5	6.5	7.8	7.4	10.4	10.6	9.2	10.6	8.9	7.6	100.0	%
Glenferness House	700	NH (28) 937430	3.21	2.37	2.30	2.85	2.92	3.05	4.12	3.91	3.50	4.02	3.20	2.70	36.68	Inch
			8.4	6.2	6.0	7.5	7.7	8.0	10.8	10.2	9.2	10.5	8.4	7.1	100.0	%
Forres (Drum Duan)	120	NY (38) 046576	2.05	1.58	1.48	1.72	2.10	2.22	3.15	2.99	2.64	2.98	2.36	1.93	27.20	Inch
			7.5	5.8	5.4	6.3	7.7	8.2	11.6	11.0	9.7	11.0	8.7	7.1	100.0	%
Ballindalloch	630	NY (38) 185369	3.01	2.19	2.08	2.62	2.54	2.60	3.68	3.41	3.29	3.64	3.13	2.58	34.77	Inch
			8.6	6.3	6.0	7.5	7.3	7.5	10.6	9.8	9.5	10.5	9.0	7.4	100.0	%
Gordon Castle	104	NY (38) 350595	2.36	1.84	1.69	1.83	2.09	2.26	3.08	3.11	3.05	3.14	2.89	2.23	29.57	Inch
			8.0	6.2	5.7	6.2	7.1	7.6	10.4	10.5	10.3	10.6	9.8	7.6	100.0	%
Banff	9	NY (38) 684638	2.45	1.92	1.63	1.79	2.03	2.08	2.88	2.99	2.99	2.94	3.12	2.47	29.29	Inch
			8.4	6.6	5.6	6.1	6.9	7.1	9.8	10.2	10.2	10.0	10.7	8.4	100.0	%
Drummuir Castle	620	NY (38) 372441	2.89	2.22	2.26	2.79	2.86	2.96	3.79	3.76	3.81	4.02	3.50	2.81	37.67	Inch
			7.7	5.9	6.0	7.4	7.6	7.8	10.1	10.0	10.1	10.7	9.3	7.4	100.0	%
Forglen House	220	NY (38) 699519	2.80	2.25	2.03	2.07	2.34	2.33	3.13	2.95	3.19	3.44	3.48	2.84	32.85	Inch
			8.5	6.9	6.2	6.3	7.1	7.1	9.5	9.0	9.7	10.5	10.6	8.6	100.0	%

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Table II. Monthly and Annual Averages of Rainfall, 1916-1950, Estimated for Short-Term Stations
Beauly and Ness and Bannf, Moray and Nairn Catchment Areas

Station	N.G.R.	Ht. (ft)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year (in.)
Beauly and Ness															
Creag Na Calman	NH(28) 185218	1050	9.19	6.57	4.78	4.93	3.57	4.26	5.23	5.38	6.50	8.36	7.62	8.29	74.68
Affric Lodge	NH(28) 185230	765	7.87	5.52	4.06	4.19	3.05	3.62	4.25	4.57	5.58	7.17	6.47	7.10	63.45
Benevean Dam	NH(28) 275280	762	6.37	4.42	3.29	3.47	2.52	2.88	3.59	3.75	4.42	5.76	5.29	5.61	51.37
Cannich	NH(28) 297259	350	5.80	3.98	2.95	3.09	2.29	2.67	3.32	3.51	4.12	5.28	4.77	5.00	46.78
Fasnakyle	NH(28) 314288	264	5.23	3.54	2.66	2.78	2.07	2.40	3.04	3.20	3.71	4.77	4.30	4.47	42.17
Mullardoch Dam	NH(28) 223310	805	8.45	5.84	4.46	4.60	3.29	3.91	4.67	5.15	5.90	7.76	7.01	7.62	68.66
Glassburn	NH(28) 370344	170	5.27	3.54	2.67	2.89	2.16	2.46	3.32	3.36	3.71	4.83	4.40	4.53	43.14
Cruadhach	NH(17) 932994	710	19.81	13.00	10.40	10.40	7.80	9.59	11.05	11.70	14.95	18.69	16.90	18.20	162.49
Kinlochquoich	NG(18) 961007	675	17.81	11.97	9.34	9.34	7.01	8.61	9.93	10.22	13.43	16.63	15.33	16.35	145.97
Lochan Na Sgud	NN(27) 061984	470	12.09	8.80	6.50	6.30	4.79	5.80	6.50	6.80	9.00	11.59	10.40	11.39	99.96
Kingie Camp	NH(28) 102014	480	10.67	7.51	5.55	5.55	4.10	4.86	5.80	5.80	7.59	9.64	8.79	9.47	85.33
Inchlaggan	NH(28) 174016	350	9.10	6.21	4.51	4.51	3.45	3.95	4.73	4.73	6.21	8.04	7.34	7.76	70.54
Lon Mor	NH(28) 336063	525	6.92	4.76	3.41	3.51	2.75	2.92	4.00	3.84	4.65	6.05	5.51	5.73	54.05
Auchterawe	NH(28) 368092	136	6.03	4.27	3.06	3.15	2.52	2.67	3.69	3.49	4.17	5.43	4.95	5.09	48.52
Invermoriston	NH(28) 417170	70	5.54	3.89	2.84	3.02	2.47	2.56	3.71	3.48	3.89	4.99	4.67	4.71	45.77
Alltsaigh	NH(28) 456192	95	5.25	3.67	2.66	2.88	2.44	2.44	3.58	3.40	3.75	4.72	4.41	4.45	43.65
Glenurquhart Forest	NH(28) 426284	1000	5.60	3.78	2.78	3.05	2.46	2.55	3.69	3.60	3.87	4.87	4.65	4.65	45.55
Glenurquhart House	NH(28) 441307	450	4.63	3.09	2.33	2.56	2.10	2.18	3.13	3.02	3.29	4.20	3.82	3.86	38.21
Loch Ashie	NH(28) 636360	718	3.43	2.40	1.80	2.23	2.33	2.06	3.26	3.33	3.03	3.59	2.96	2.86	33.28
Inverness	NH(28) 648462	13	2.49	1.74	1.38	1.64	1.95	1.79	2.68	2.83	2.42	2.67	2.29	2.10	25.98
Dalcross	NM(28) 746520	35	2.31	1.61	1.39	1.67	2.00	1.85	2.69	2.77	2.33	2.79	2.21	2.03	25.65
Nairn	NH(28) 862566	20	2.00	1.50	1.38	1.60	1.97	1.88	2.75	2.77	2.32	2.72	2.20	1.90	24.99
Balblair	NH(28) 873553	94	2.29	1.69	1.52	1.86	2.32	2.21	3.18	3.22	2.64	3.07	2.47	2.21	28.68

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Table II. Monthly and Annual Averages of Rainfall, 1916-1950, Estimated for Short-Term Stations (contd.) Beauly and Ness and Banff, Moray and Nairn Catchment Areas

Station	N.G.R.	Ht. (ft)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year (in.)
Banff, Moray and Nairn															
Auchindoune	NH(28) 838479	425	2.87	1.96	1.74	2.16	2.48	2.45	3.48	3.48	2.93	3.48	2.70	2.48	32.21
Dalmigavie Lodge	NH(29) 753234	1150	4.90	3.67	2.83	3.07	3.12	2.98	4.49	4.13	4.13	4.86	3.99	3.67	45.84
Forres	NJ(33) 047587	155	1.84	1.43	1.33	1.55	1.89	2.02	2.85	2.71	2.39	2.71	2.14	1.75	24.61
Findhorn	NJ(38) 039644	20	1.80	1.35	1.26	1.56	1.90	1.95	2.76	2.69	2.31	2.62	2.11	1.71	24.02
Kinloss	NJ(38) 069625	15	1.81	1.35	1.28	1.57	1.89	1 98	2.78	2.71	2.32	2.66	2.13	1.69	24.17
Lossiemouth	NJ(38) 211701	21	1.87	1.42	1.37	1.59	1.87	1.99	2.74	2.67	2.49	2.69	2.29	1.92	24.91
Kellas House	NJ(38) 165539	446	2.69	2.05	1.87	2.36	2.64	2.85	3.82	3.76	3.41	3.72	3.13	2.47	34.77
Elgin, Kirkhill	NJ(38) 249628	35	2.02	1.54	1.48	1.78	2.02	2.25	2.98	2.96	2.74	2.93	2.47	1.95	27.12
Lesmurdie House	NJ(38) 226636	114	2.13	1.55	1.47	1.83	2.04	2.23	2.98	2.94	2.73	2.92	2.45	1.99	27.26
Elgin	NJ(38) 226617	92	1.97	1.45	1.37	1.74	1.95	2.13	2.85	2.83	2.62	2.80	2.36	1.87	25.94
Blackhills House	NJ(38) 271586	310	2.44	1.87	1.67	2.15	2.34	2.47	3.42	3.42	3.23	3.39	2.91	2.34	31.65
Newton	NJ(38) 162637	75	1.92	1.44	1.36	1.72	1.97	2.10	2.91	2.82	2.51	2.77	2.26	1.87	25.65
Loch Spey	NN(27) 424938	1164	8.51	6.31	4.32	4.39	3.84	3.57	4.80	4.66	5.83	7.82	7.06	7.48	68.59
Mealgarve	NN(27) 463959	1135	7.26	5.26	3.68	3.74	3.27	3.10	4.15	4.03	4.97	6.56	6.09	6.38	58.49
Cluny Castle	NN(27) 647942	830	5.02	3.50	2.59	2.55	2.47	2.39	3.09	3.09	3.50	4.61	4.20	4.16	41.17
Dalwhinnie	NN(27) 638848	1176	6.06	4.19	3.15	3.05	2.90	2.66	3.45	3.69	4.09	5.56	5.02	5.42	49.24
Loch Cuaich	NN(27) 702886	1340	5.72	4.01	2.88	2.93	2.83	2.69	3.68	3.64	4.01	5.29	4.78	4.78	47.24
Tromie Dam	NN(27) 763883	1430	6.10	4.20	3.13	3.18	3.18	2.92	4.15	4.10	4.20	5.74	5.18	5.18	51.26
Glenfeshie Lodge	NN(27) 842933	1170	5.03	3.44	2.58	2.75	2.75	2.54	3.66	3.49	3.66	4.78	4.22	4.13	43.03
Kinrara	NH(28) 877084	800	3.95	2.75	2.02	2.40	2.33	2.23	3.42	2.96	3.11	3.88	3.28	2.96	35.29
Loch Morlich	NH(28) 978097	1072	4.42	3.13	2.29	2.81	2.65	2.49	3.90	3.42	3.54	4.47	3.74	3.34	40.20
Glenmore Lodge	NH(28) 986095	1120	4.36	3.00	2.44	2.76	2.72	2.56	3.80	3.36	3.48	4.40	3.76	3.36	40.00
Carrbridge	NJ(38) 910224	850	3.07	2.25	1.79	2.16	2.16	2.13	3.07	2.74	2.74	3.25	2.71	2.34	30.41
Glenlivet, Clashnoir	NJ(38) 223222	1085	3.57	2.55	2.22	2.62	2.70	2.55	3.42	3.21	3.31	3.93	3.39	2.95	36.42
Rochomie Res.	NJ(38) 442632	287	2.25	1.75	1.54	1.75	1.94	2.11	2.91	2.91	2.86	2.91	2.69	2.14	27.76

Table II. Monthly and Annual Averages of Rainfall, 1916-1950, Estimated for Short-Term Stations (contd.) Beauly and Ness and Banff, Moray and Nairn Catchment Areas

Station	N.G.R.	Ht. (ft)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year (in.)
Banff, Moray and Nairn (contd.)															
Cullen House	NJ(38) 503656	150	2.48	1.87	1.69	1.90	2.12	2.27	3.11	3.11	3.11	3.19	3.02	3.26	30.23
Cabrach	NJ(38) 369271	1041	3.78	2.84	2.47	2.96	3.00	2.80	3.89	3.53	3.73	4.39	3.86	3.33	40.58
Huntly	NJ(38) 529402	400	3.16	2.38	2.28	2.45	2.60	2.52	3.41	3.20	3.38	3.74	3.48	2.95	35.55
Keith, Isla Bank Mill	NJ(38) 429506	360	2.97	2.34	2.15	2.56	2.67	2.78	3.71	3.79	3.79	3.90	3.60	2.86	37.12
Easterfield School	NJ(38) 654454	450	2.91	2.25	2.01	2.11	2.35	2.31	3.24	2.97	3.24	3.50	3.40	2.74	33.03
Muiresk House	NJ(38) 704496	130	2.87	2.31	2.04	2.17	2.37	2.34	3.28	3.01	3.28	3.55	3.45	2.77	33.44

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Table III. Accumulated Mean Daily Rainfall, in inches, 1916-1950*.

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Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	.19	2.82	4.68	6.23	7.99	10.16	12.06	15.06	18.13	20.79	23.73	26.19
2	.32	2.91	4.73	6.28	8.04	10.26	12.12	15.18	18.25	20.94	23.84	26.30
3	.45	2.97	4.77	6.33	8.09	10.33	12.22	15.21	18.35	21.02	23.98	26.39
4	.54	3.04	4.81	6.40	8.18	10.38	12.29	15.24	18.50	21.12	24.10	26.47
5	.63	3.13	4.88	6.47	8.26	10.48	12.38	15.36	18.58	21.27	24.18	26.57
6	.74	3.20	4.93	6.55	8.36	10.56	12.44	15.42	18.66	21.38	24.27	26.69
7	.85	3.25	4.99	6.62	8.44	10.60	12.58	15.52	18.74	21.46	24.37	26.74
8	.94	3.33	5.05	6.71	8.48	10.65	12.67	15.62	18.89	21.53	24.45	26.79
9	1.03	3.43	5.10	6.74	8.53	10.72	12.72	15.72	18.97	21.68	24.52	26.86
10	1.08	3.48	5.13	6.78	8.57	10.80	12.79	15.81	19.07	21.80	24.57	26.91
11	1.17	3.54	5.15	6.83	8.62	10.84	12.90	15.93	19.13	21.86	24.63	26.99
12	1.27	3.59	5.19	6.89	8.66	10.88	13.01	16.01	19.18	21.92	24.71	27.05
13	1.36	3.63	5.22	6.93	8.75	10.94	13.13	16.18	19.30	22.01	24.80	27.11
14	1.47	3.73	5.24	6.99	8.82	11.00	13.22	16.31	19.40	22.13	24.90	27.16
15	1.53	3.81	5.27	7.05	8.89	11.04	13.31	16.46	19.46	22.19	24.97	27.26
16	1.60	3.86	5.35	7.12	8.95	11.09	13.39	16.66	19.59	22.31	25.02	27.35
17	1.67	3.92	5.42	7.17	9.03	11.11	13.54	16.79	19.69	22.41	25.10	27.42
18	1.73	4.01	5.45	7.23	9.10	11.19	13.75	16.89	19.78	22.49	25.18	27.52
19	1.79	4.06	5.52	7.29	9.15	11.26	13.87	16.96	19.88	22.55	25.25	27.61
20	1.84	4.11	5.57	7.35	9.19	11.33	13.95	17.09	20.01	22.59	25.32	27.66
21	1.92	4.17	5.61	7.40	9.26	11.44	14.07	17.19	20.06	22.64	25.38	27.72
22	2.00	4.21	5.66	7.45	9.32	11.50	14.15	17.26	20.18	22.74	25.46	27.78
23	2.10	4.25	5.70	7.50	9.44	11.59	14.23	17.36	20.27	22.85	25.57	27.83
24	2.21	4.30	5.73	7.56	9.49	11.65	14.31	17.43	20.35	22.96	25.64	27.91
25	2.32	4.34	5.78	7.62	9.56	11.71	14.40	17.53	20.42	23.07	25.71	28.02
26	2.38	4.40	5.84	7.71	9.61	11.79	14.50	17.68	20.48	23.21	25.79	28.08
27	2.43	4.48	5.90	7.80	9.70	11.86	14.56	17.75	20.53	23.28	25.85	28.14
28	2.50	4.57	5.94	7.85	9.81	11.92	14.70	17.88	20.59	23.39	25.97	28.23
29	2.57	4.65	6.01	7.90	9.86	11.99	14.77	17.93	20.62	23.48	26.06	28.31
30	2.60		6.11	7.94	9.97	12.03	14.89	17.98	20.70	23.57	26.13	28.38
31	2.74		6.16		10.06		14.97	18.06		23.64		28.44

*1922 missing.

Table III. Accumulated Mean Daily Rainfall, in inches, 1916-50

NAIRN, ACHAREIDH

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	.13	2.16	3.68	5.13	6.80	8.94	10.98	13.96	16.90	19.38	22.23	24.51
2	.23	2.22	3.73	5.20	6.86	9.02	11.06	14.06	17.03	19.50	22.34	24.59
3	.33	2.28	3.77	5.27	6.92	9.11	11.15	14.13	17.12	19.62	22.45	24.68
4	.39	2.34	3.81	5.36	6.99	9.20	11.22	14.18	17.22	19.69	22.55	24.74
5	.45	2.40	3.86	5.44	7.05	9.29	11.31	14.28	17.28	19.85	22.64	24.82
6	.54	2.46	3.91	5.51	7.16	9.38	11.41	14.32	17.34	19.96	22.72	24.92
7	.65	2.50	3.94	5.57	7.23	9.44	11.51	14.43	17.41	20.05	22.82	24.97
8	.71	2.55	4.01	5.66	7.28	9.52	11.63	14.52	17.56	20.12	22.87	25.01
9	.76	2.63	4.05	5.69	7.35	9.60	11.72	14.59	17.65	20.23	22.92	25.06
10	.80	2.67	4.08	5.73	7.39	9.68	11.78	14.67	17.73	20.36	22.98	25.12
11	.86	2.71	4.10	5.77	7.43	9.71	11.92	14.77	17.78	20.43	23.04	25.20
12	.95	2.74	4.14	5.83	7.50	9.77	12.01	14.88	17.84	20.51	23.12	25.27
13	1.02	2.77	4.16	5.86	7.59	9.82	12.10	15.04	17.94	20.59	23.21	25.31
14	1.09	2.85	4.19	5.91	7.64	9.91	12.17	15.19	18.01	20.70	23.29	25.36
15	1.14	2.93	4.24	6.00	7.75	9.97	12.27	15.31	18.05	20.77	23.36	25.43
16	1.19	2.96	4.29	6.07	7.83	10.01	12.35	15.50	18.18	20.85	23.41	25.51
17	1.25	3.02	4.36	6.10	7.90	10.04	12.46	15.61	18.30	20.95	23.50	25.56
18	1.30	3.09	4.40	6.15	7.96	10.11	12.61	15.69	18.41	21.03	23.57	25.63
19	1.36	3.13	4.47	6.20	8.00	10.16	12.73	15.79	18.51	21.08	23.62	25.70
20	1.42	3.18	4.52	6.25	8.04	10.25	12.85	15.89	18.61	21.13	23.68	25.75
21	1.49	3.24	4.56	6.32	8.10	10.33	13.02	15.97	18.70	21.18	23.75	25.80
22	1.54	3.29	4.61	6.38	8.16	10.41	13.12	16.04	18.79	21.29	23.83	25.84
23	1.64	3.32	4.66	6.42	8.28	10.49	13.18	16.14	18.89	21.39	23.93	25.87
24	1.71	3.37	4.69	6.47	8.35	10.58	13.24	16.23	18.95	21.48	24.00	25.95
25	1.79	3.43	4.73	6.52	8.41	10.66	13.36	16.33	19.02	21.59	24.06	26.03
26	1.84	3.47	4.78	6.59	8.47	10.71	13.47	16.42	19.07	21.71	24.13	26.09
27	1.87	3.53	4.83	6.68	8.57	10.80	13.52	16.49	19.13	21.79	24.19	26.14
28	1.92	3.58	4.87	6.70	8.69	10.83	13.62	16.64	19.20	21.96	24.31	26.20
29	1.99	3.64	4.93	6.72	8.74	10.86	13.70	16.72	19.23	22.01	24.36	26.27
30	2.01		5.02	6.74	8.80	10.90	13.80	16.76	19.27	22.06	24.41	26.32
31	2.10		5.05		8.85		13.86	16.80		22.11		26.36

Table III. Accumulated Mean Daily Rainfall, in inches, 1916-50

Fochabers, Gordon Castle

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.14	2.44	4.31	5.99	7.80	9.90	12.16	15.28	18.38	21.44	24.56	27.46
2	0.27	2.49	4.34	6.05	7.85	10.04	12.23	15.40	18.47	21.54	24.68	27.58
3	0.39	2.59	4.39	6.10	7.91	10.10	12.33	15.48	18.57	21.65	24.82	27.67
4	0.45	2.64	4.43	6.18	7.98	10.19	12.43	15.52	18.66	21.73	24.93	27.75
5	0.53	2.73	4.50	6.25	8.06	10.35	12.52	15.60	18.74	21.85	25.03	27.82
6	0.63	2.78	4.55	6.31	8.14	10.43	12.64	15.67	18.85	21.97	25.14	27.91
7	0.71	2.84	4.60	6.35	8.22	10.46	12.71	15.78	18.93	22.04	25.28	27.99
8	0.76	2.89	4.65	6.42	8.31	10.53	12.81	15.95	19.12	22.13	25.34	28.06
9	0.81	2.95	4.70	6.44	8.36	10.62	12.91	16.01	19.21	22.25	25.40	28.15
10	0.87	3.01	4.74	6.49	8.41	10.73	13.02	16.11	19.31	22.35	25.50	28.23
11	0.95	3.06	4.80	6.55	8.46	10.78	13.13	16.20	19.37	22.41	25.59	28.32
12	1.04	3.11	4.86	6.60	8.52	10.82	13.25	16.34	19.44	22.52	25.67	28.39
13	1.10	3.15	4.90	6.63	8.63	10.89	13.38	16.42	19.58	22.62	25.79	28.42
14	1.16	3.23	4.93	6.69	8.69	10.96	13.46	16.50	19.68	22.72	25.89	28.47
15	1.20	3.29	4.97	6.77	8.84	11.04	13.54	16.64	19.74	22.80	26.00	28.52
16	1.28	3.33	5.03	6.85	8.93	11.10	13.61	16.82	19.89	22.89	26.09	28.61
17	1.33	3.41	5.07	6.92	8.99	11.13	13.75	16.93	20.01	23.01	26.18	28.67
18	1.41	3.49	5.10	7.00	9.03	11.17	13.91	17.07	20.18	23.10	26.29	28.72
19	1.47	3.54	5.19	7.06	9.06	11.26	14.01	17.15	20.30	23.16	26.37	28.80
20	1.54	3.60	5.23	7.13	9.11	11.33	14.11	17.29	20.40	23.21	26.48	28.85
21	1.62	3.65	5.27	7.18	9.18	11.42	14.30	17.41	20.43	23.28	26.55	28.90
22	1.69	3.71	5.33	7.21	9.23	11.50	14.36	17.49	20.62	23.40	26.64	28.98
23	1.80	3.78	5.40	7.27	9.29	11.57	14.45	17.58	20.77	23.54	26.79	29.05
24	1.88	3.83	5.44	7.35	9.33	11.65	14.50	17.65	20.88	23.66	26.85	29.13
25	1.96	3.89	5.49	7.43	9.39	11.73	14.60	17.74	20.98	23.77	26.96	29.22
26	2.03	3.99	5.57	7.51	9.44	11.81	14.71	17.85	21.08	23.94	27.06	29.30
27	2.11	4.09	5.63	7.58	9.53	11.88	14.76	17.93	21.15	24.07	27.14	29.33
28	2.17	4.14	5.69	7.63	9.62	11.94	14.95	18.03	21.20	24.19	27.21	29.41
29	2.24	4.20	5.77	7.68	9.66	12.00	15.01	18.12	21.25	24.31	27.27	29.48
30	2.27		5.85	7.72	9.74	12.07	15.08	18.19	21.31	24.38	27.34	29.53
31	2.36		5.89		9.81		15.15	18.26		24.45		29.57

Table IV. Accumulated Frequencies of Daily Rainfall, in inches, 1916-1950

INVERNESS ϕ

Daily totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
2.70								ϟ1					ϟ1
2.60								1					1
2.50								1					1
2.40								1					1
2.30								1					1
2.20								1					1
2.10								1	1				2
2.00								1	1				2
1.90							1	1	1				3
1.80							1	1	2				4
1.70						1	1	2	2	1	1		8
1.60	1					1	1	2	3	1	1		10
1.50	1				1	1	2	2	3	1	1		12
1.40	1				1	3	2	3	3	1	1		15
1.30	1			1	1	3	2	3	3	2	1		17
1.20	5			1	3	3	4	5	6	3	1		31
1.10	5			1	3	3	6	8	9	4	1	1	41
1.00	5			2	6	4	9	10	9	6	3	1	55
0.90	5	1		2	6	8	11	14	12	6	5	2	72
0.80	9	1		5	8	8	11	23	15	10	8	2	100
0.70	12	2	1	5	15	12	20	33	22	14	13	5	154
0.60	15	7	4	7	18	16	28	41	26	21	15	12	210
0.50	29	13	6	11	23	22	43	54	38	44	29	26	338
0.40	48	22	17	18	34	34	70	72	51	62	44	37	509
0.30	91	55	31	44	63	57	113	106	75	102	78	63	878
0.20	161	107	73	87	110	100	173	160	145	174	148	140	1578
0.10	304	222	173	192	216	200	284	275	255	301	260	263	2945
0.005	585	516	499	540	514	487	591	561	587	628	581	587	6676
* ≤ 0.004	469	444	555	480	540	533	463	493	433	426	439	467	5742
Total No. of Days	1054	960	1054	1020	1054	1020	1054	1054	1020	1054	1020	1054	12418

* including rainless days

ϟ actual value, 3.31 inches

ϕ 1922 missing

Table IV. Accumulated Frequencies of Daily Rainfall, in inches, 1916-1950

NAIRN, ACHAREIDH

Daily totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
2.70								1					1
2.60								1					1
2.50								1					1
2.40								1					1
2.30								1					1
2.20								1		1			2
2.10								1		1			2
2.00								1		1			2
1.90								1		1			2
1.80						1		1		1			3
1.70						1		1		1			3
1.60					1	1		2		1			5
1.50					1	1	1	3	1	1			8
1.40				1	1	1	4	3	1	1			12
1.30				1	1	2	5	3	2	2	1		17
1.20				1	2	3	7	3	3	2	3		24
1.10				2	3	4	7	7	4	4	5		36
1.00				2	4	4	8	9	5	4	5		41
0.90	2		1	2	5	5	13	11	10	9	7		65
0.80	2	1	1	2	8	6	17	15	13	10	7		82
0.70	3	1	1	5	12	8	22	19	17	12	10	1	111
0.60	7	4	2	8	18	14	29	27	20	20	15	4	168
0.50	15	4	6	13	25	20	40	45	29	33	23	11	264
0.40	29	13	11	24	40	33	67	69	44	51	34	27	442
0.30	61	39	26	39	64	57	106	101	75	98	65	54	785
0.20	122	77	68	76	106	105	163	148	134	170	120	118	1407
0.10	248	193	163	189	212	220	285	287	256	307	260	233	2853
0.005	663	563	591	645	613	612	682	684	687	713	668	660	7781
*≤0.004	422	426	494	405	472	438	403	401	363	372	382	425	5003
Total No. of days	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days

Table IV. Accumulated Frequencies of Daily Rainfall, in inches, 1916-1950

FOCHABERS, GORDON CASTLE

Daily totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
2.40								1					1
2.30								1					1
2.20								1					1
2.10						1		1					2
2.00						1		1	1				3
1.90						1		1	2				4
1.80						1		2	3				6
1.70						1		2	4				7
1.60						1		2	4				7
1.50						1		2	5				8
1.40					1	1	2	4	6		1		15
1.30			1		1	2	2	6	6		1	1	20
1.20			1		1	3	5	8	6	1	3	1	29
1.10		1	1		1	6	6	10	9	2	3	1	40
1.00	1	1	1	2	4	6	9	14	12	7	4	1	62
0.90	2	2	1	3	6	9	15	16	14	10	6	2	86
0.80	2	5	2	5	10	13	18	21	20	16	10	3	125
0.70	5	6	4	6	14	16	25	27	29	22	14	6	174
0.60	10	12	6	9	22	22	32	34	39	29	24	11	250
0.50	22	18	10	14	28	32	45	51	43	42	35	20	360
0.40	38	31	21	23	38	44	76	79	59	63	54	34	560
0.30	73	48	41	52	62	72	114	113	101	113	104	67	960
0.20	144	99	81	109	112	121	186	177	158	188	173	127	1675
0.10	284	202	207	215	232	230	309	285	294	338	314	259	3169
0.005	618	531	543	539	520	520	609	563	607	666	667	625	7008
*≦0.004	467	458	542	511	565	530	476	522	443	419	383	460	5776
Total No. of days	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days

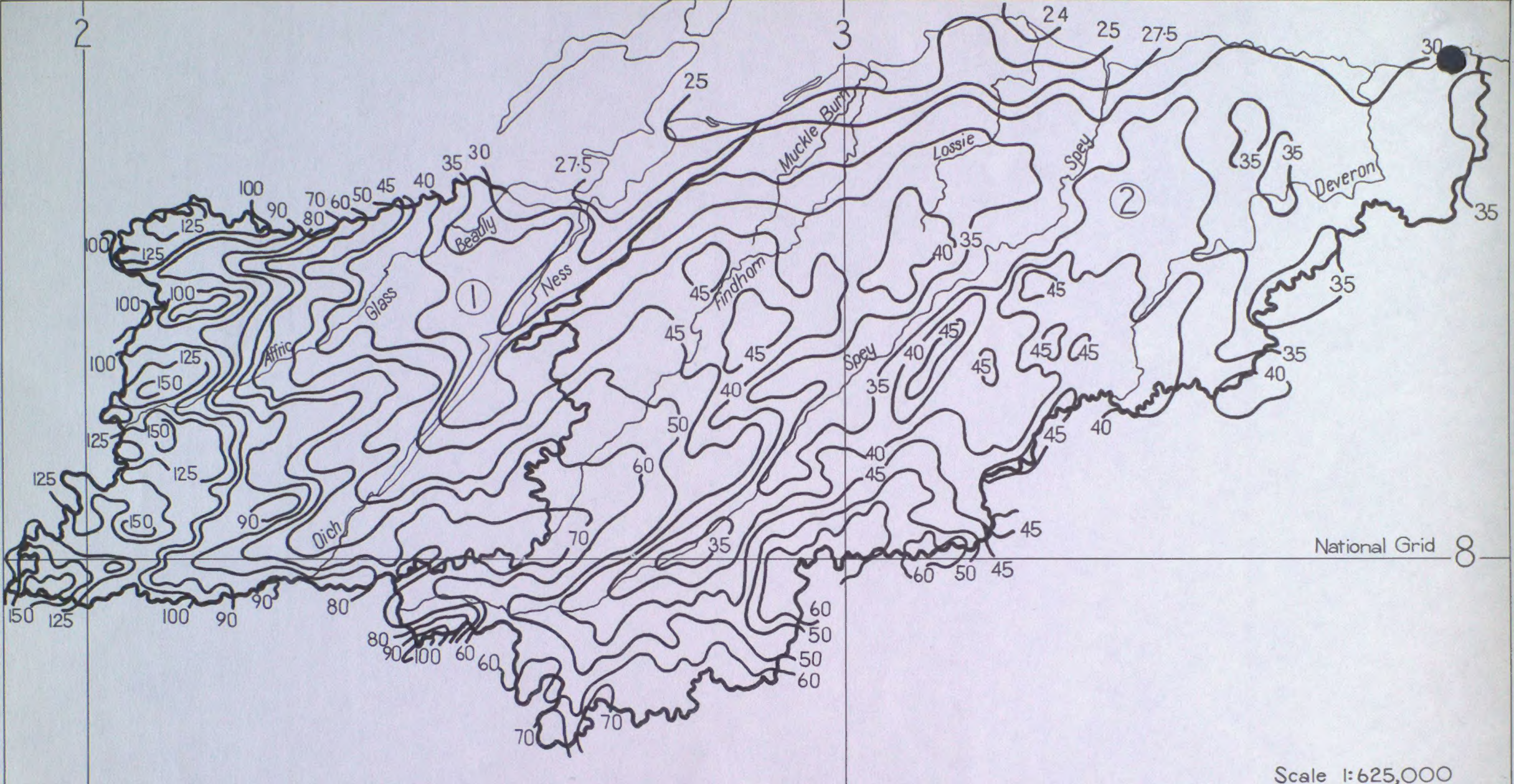
Table V. Maximum Daily Rainfall, in inches

	Period	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Inverness	1900-1963*	1949 1.67	1950 0.94	1908 0.79	1948 1.37	1914 1.68	1947 1.74	1956 ~~1916~~ ~~1.95~~ 3.53	1937 3.31	1915 3.64	1954 2.02	1932 1.74	1956 1.18
Achareidh	1900-1963**	1949 0.96	1950 0.81	1905 1.49	1948 1.40	1941 1.62	1931 1.80	1956 2.25	1937 2.72	1924 3.29	1924 2.26	1915 1.85	1957 0.83
Gordon Castle	1900-1963	1903 1.08	1900 1.40	1940 1.30	1910) 1948) 1.04	1912 1.64	1947 2.15	1901 1.98	1948 2.44	1915 2.65	1906 2.12	1915 1.80	1957 1.75

* Various sites; 1922 and August 1957-June 1958 missing

** 1902 missing

G20162/MS/3/64/100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3
National Grid
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Orich
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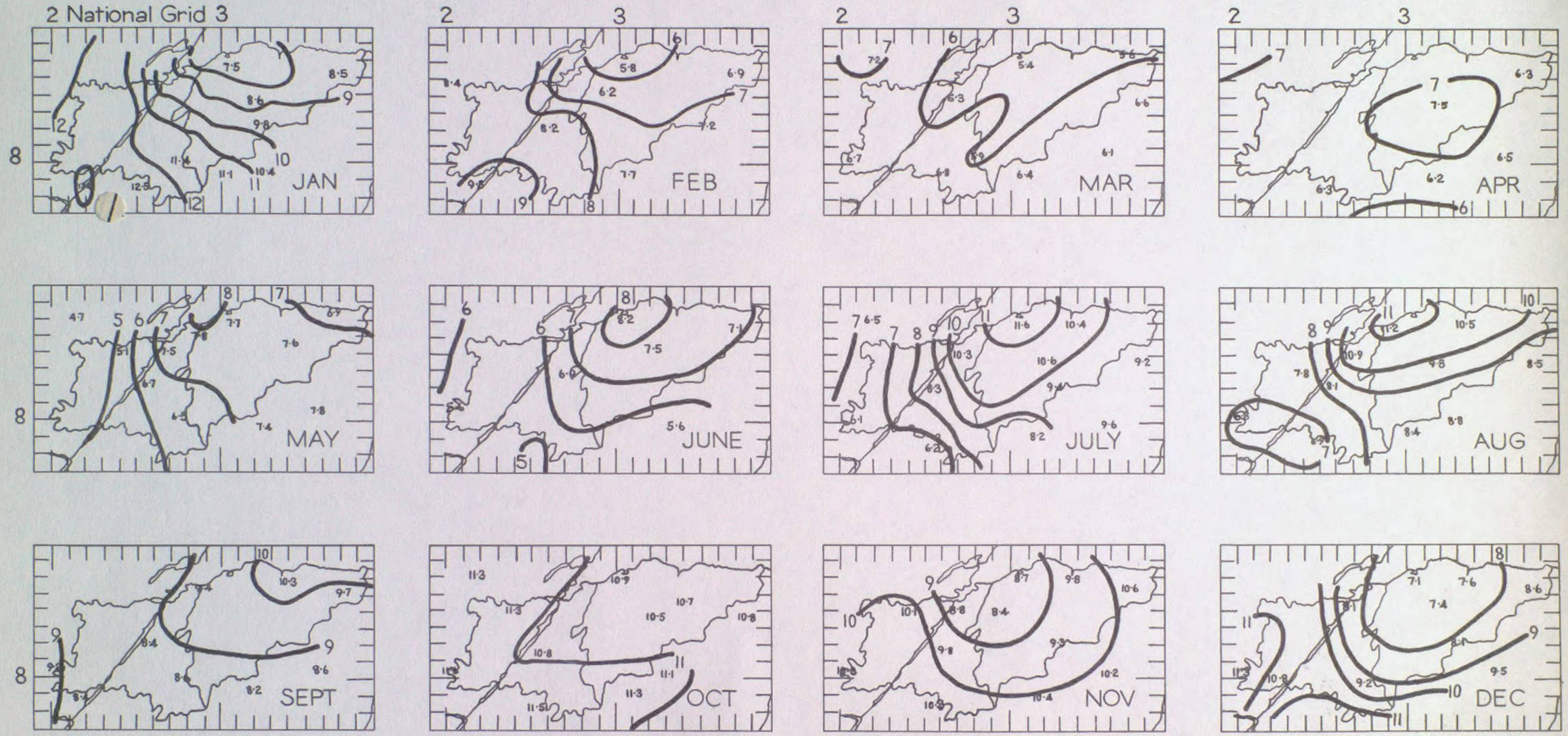

Fig 1. Average Monthly Rainfall as a percentage of Average Annual Rainfall, 1916–1950, January to December